

188-1



structural  
steel



FEB 15 '26

# STRUCTURAL STEEL

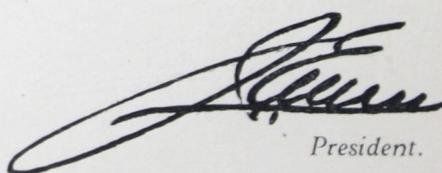
The J. E. Moss Iron Works  
Wheeling, W. Va.

It is with a feeling of pardonable pride that we present to our patrons and friends this brochure outlining the extent of the work we have performed, and the resources and facilities which we have for your use when required.

Every member of this organization feels this just pride, and their desire to share it with you not only places the facilities at your command, but invites you to pay us a visit and meet those with whom you may come in contact personally.

While we are proud of the attainment we have achieved, we are cognizant of the fact that it has been brought about, not only by our earnest endeavor to meet the building public's demand, but in a very large measure by the loyalty of our patrons and friends whom we have striven faithfully to serve.

The story embodied in this brochure, we hope will bring about a closer relationship between us, and the benefit derived therefrom will be commensurate in some degree with the pleasure we take in submitting it to you.



J. C. Moss  
President.

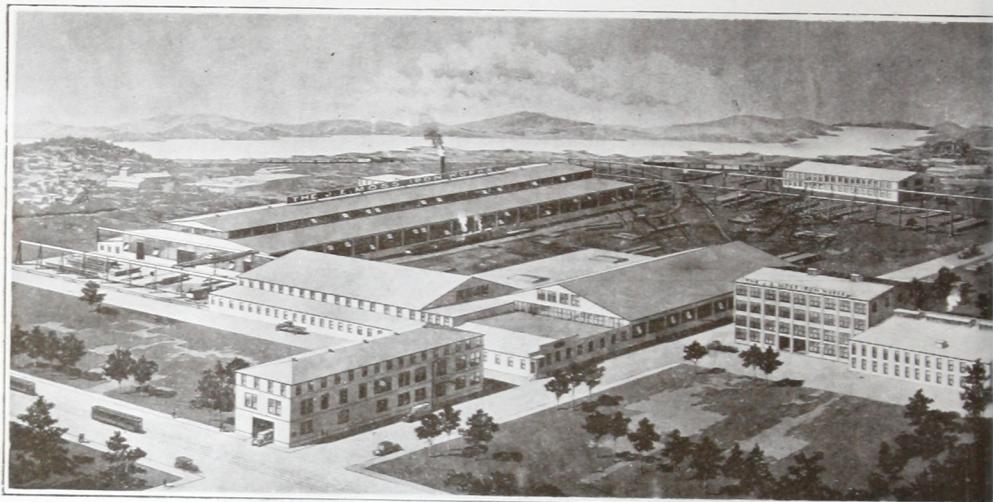
## FOREWORD

**T**HIS BROCHURE is compiled to acquaint the building public with those products of the J. E. Moss Iron Works, of Wheeling, West Virginia, which enter into modern construction and fire-proofing.

It graphically shows some examples of steel construction erected by our organization, and the types herein presented are selected to show the broad scope of our activities.

To those familiar with the structural steel business and its attending problems, they will be convincing evidence of our ability to handle the heaviest and most difficult job in the field of steel construction.

We will also try to convey a better knowledge of the many and varied uses to which structural steel is now put, the durability of this type of construction, its many advantages and economies.



BIRDS-EYE VIEW, WHEELING PLANT

THE J. E. MOSS IRON WORKS was founded in 1909 and incorporated in 1913. Its progress from its inception was rapid, and in the year 1916 it absorbed The Architectural Iron & Wire Works of Wheeling, and again in February of 1924 it acquired the Riverside Bridge Company of Martins Ferry, Ohio, who also had a modern and up-to-date plant. This merging of resources and facilities making it one of the largest steel fabricators in the country.

Our combined plants cover twenty acres of ground.

Our modern equipment and facilities permit us to execute large or small contracts both speedily and economically.

Lack of space will not permit us to show pictorially the many contracts we have executed in the more recent years, and we have, therefore, selected types of structures that will



GENERAL VIEW, RIVERSIDE PLANT, MARTINS FERRY, OHIO



PUNCHING AND FITTING DEPARTMENT, RIVERSIDE PLANT

embody approximately every phase of building, factory and bridge construction. These buildings extend over a considerable portion of this country, as well as Cuba and Canada.

In addition to the types of buildings aforementioned, we have built units for many universities; various types of all steel grand-stands and stadiums; and the most intricate of

coal tipples and hoist-houses in both the Eastern and Central coal regions. We also fabricate steel barges and all steel gasoline filling and pumping stations.

Along with the fabrication of material classed as structural steel, we manufacture and install all types of miscellaneous iron, ornamental iron, and bronze work required for the



DRILLING AND RIVETING DEPARTMENT, RIVERSIDE PLANT

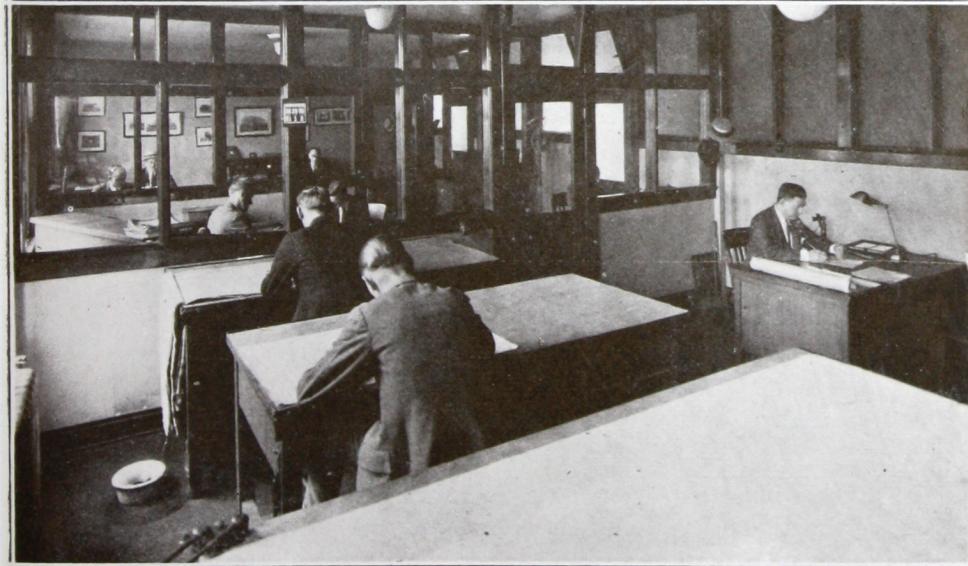


SHIPPING YARDS, RIVERSIDE PLANT

average high-class structure; striking specimens of this work are in evidence in the Jacksonville Union Terminal at Jacksonville, Florida, and at the Beech Bottom Power Plant, Beech Bottom, West Virginia. This class of work includes stairs, railings, balconies, marquises, elevator inclosures, metal doors, windows, fire escapes, etc.

## Your Job in Our Plant

LET us follow a typical job through our organization. We learn that a building is to be erected, the plans for which have been prepared by an engineer or architect. In possession of this information, we request permission to submit an



SALES AND ESTIMATING DEPARTMENT

estimate of material required. A copy of the plans and specifications are secured and turned over to our estimating department who figure the cost and tonnage.

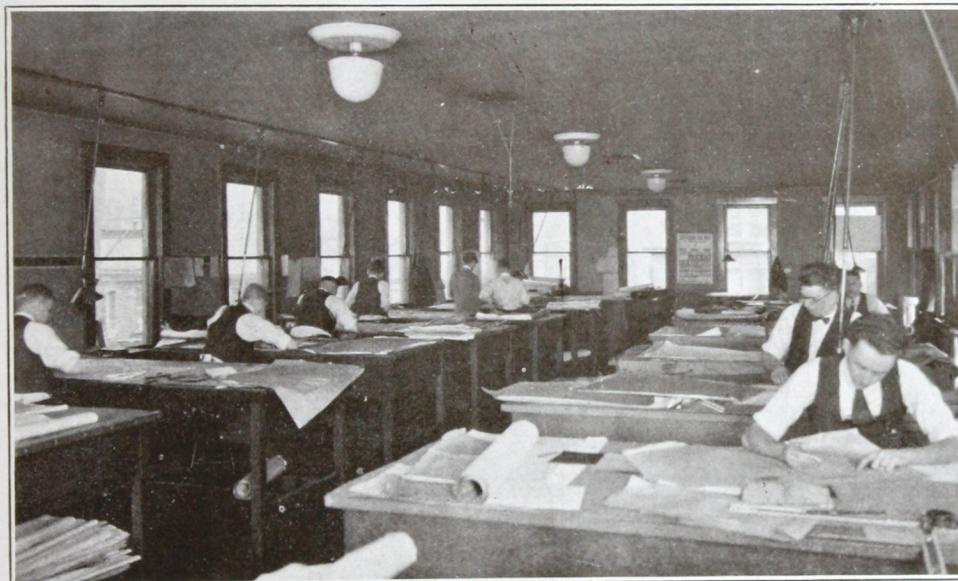
This estimate is given to the sales department who establish a personal contact with the purchaser and procure the contract for the job.

After the contract is closed, the sales department passes it on to the production department, who in turn issues the necessary instructions to the designing department for the preparation of the designs in accordance with the standard practice for the drafting department. Here complete plans and details are made from which to fabricate the steel, so that it may be put together without difficulty upon arrival at the job.

After the details are prepared, they are submitted to the engineer or architect for his approval. After this approval has been secured, provision is made for the material and actual work begun in our shops.

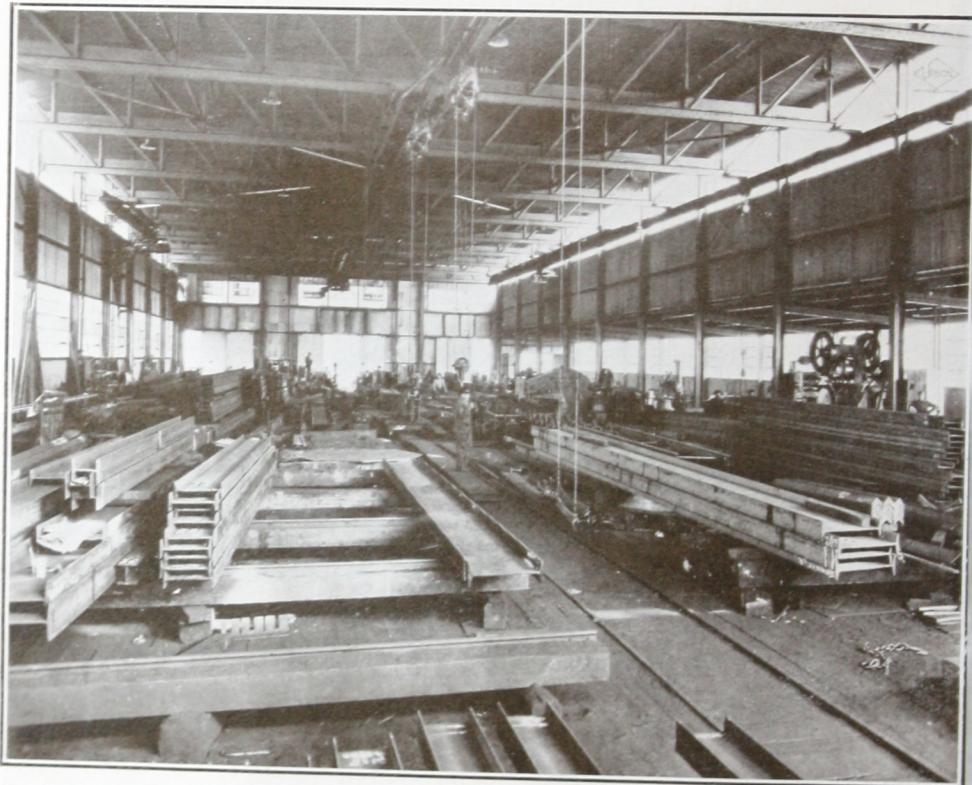
For most ordinary jobs, embodying minimum weight standard sections, we have sufficient material in the large stocks carried in our yards, and for the larger jobs, or work requiring unusual sections, we have the facilities of the largest rolling mills at our command, and from whom we procure the material in accordance with their scheduled rollings.

All work is routed through the shops in a continuity of operation, beginning with the laying-out or transferring of the designs to the steel; the punching of holes to permit of connections either with rivets or bolts; the assembling of various units to form a completed member; the riveting of these



DETAILING DEPARTMENT, DRAFTING ROOM

units to a point of necessary strength and safety; painting each member thoroughly to minimize its resistance to rust. Material is now ready for shipment, and upon loading into cars is conveyed to its destination.



END OF MAIN SHOP, WHEELING PLANT

Where the purchaser deems it of advantage to have us erect the steel we have fabricated, we do so with our experienced erection forces, assuming all the responsibility until it is turned over to them for the continuation with other crafts.

Where specifications require, another coat of paint is given the steel after completely erected, so that any possible corrosion affecting the steel while in transit or erection can be overcome and eliminated.



RECEIVING DEPARTMENT, WHEELING PLANT

## Office, Hotel, Bank, Theatre Buildings, Etc.

THE past decade has brought forth a new type of American architecture in the tall building or sky-scraper.

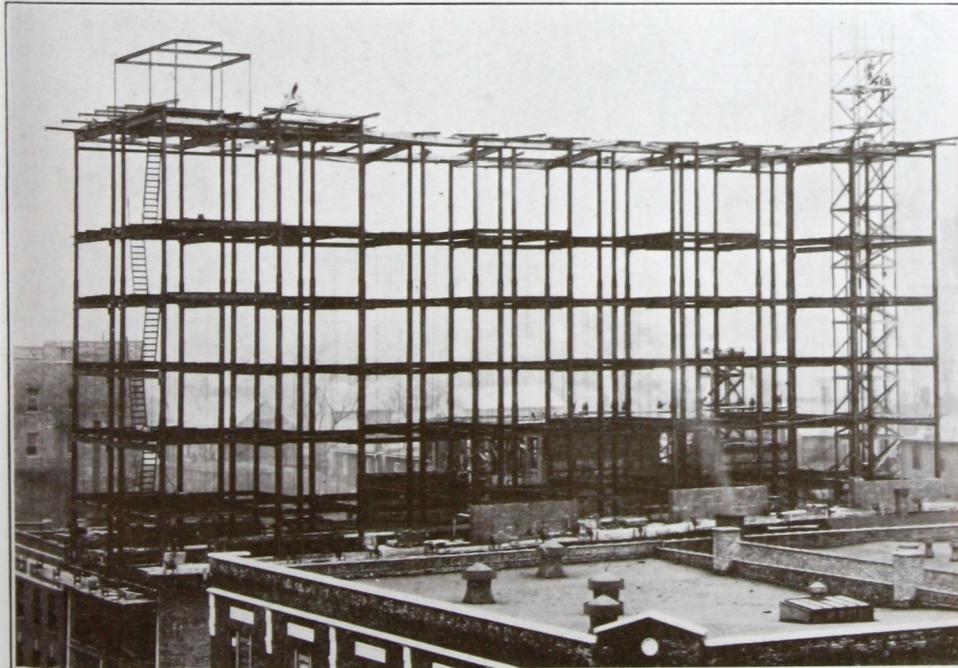
This type of building is typically American, in that it was evolved to answer the question of shrinking ground space



CLEVELAND DISCOUNT AND MORTGAGE CO. BUILDING, CLEVELAND, OHIO

and an ever increasing population. As the demand for more room became insistent and ground space was not available, the American engineer with his ingenuity arrived at the extremely simple solution of the difficulty, by building up.

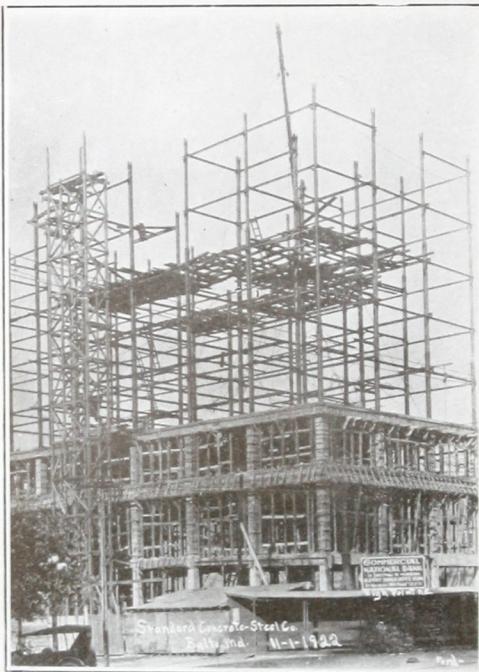
The towering sky-scraper of today would have been impossible without structural steel.



MARNE HOTEL, AKRON, OHIO

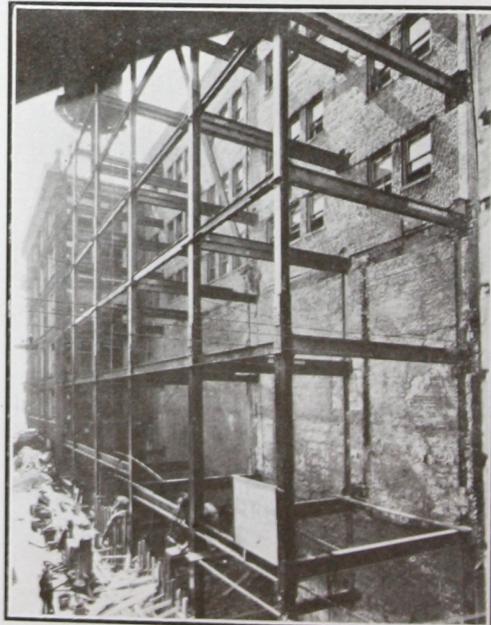
MOSS

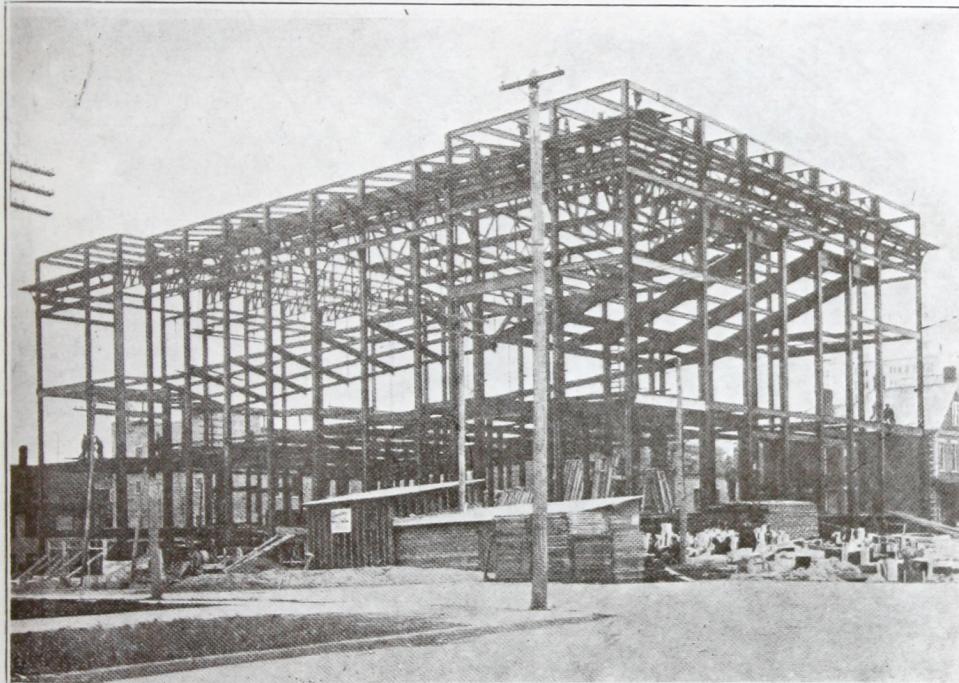
STRUCTURAL STEEL



COMMERCIAL NATIONAL  
BANK  
HIGH POINT, N. C.

STONE & THOMAS  
ADDITION  
WHEELING, W. VA.





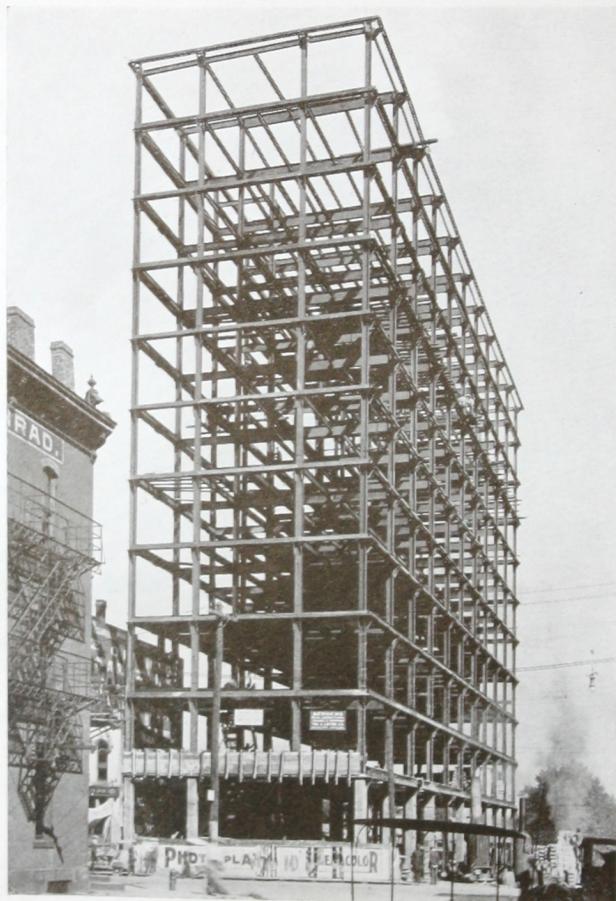
CITY HALL AND AUDITORIUM, HUNTINGTON, W. VA.

As these great buildings go up, story by story, it is steel that is always in the vanguard of the operations; it is steel that must carry the tremendous load of the finished structure.

Without steel there could never have been the huge mar-

MOSS

STRUCTURAL STEEL



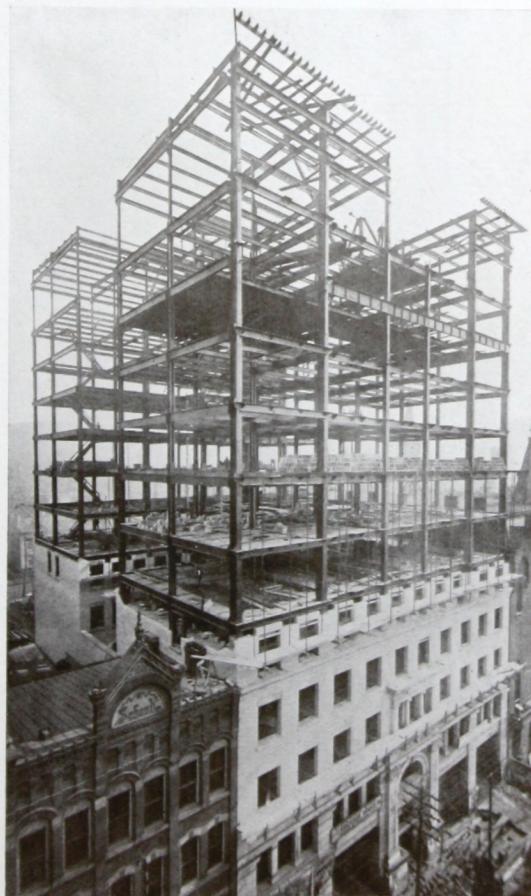
RENKERT  
BUILDING  
CANTON, OHIO

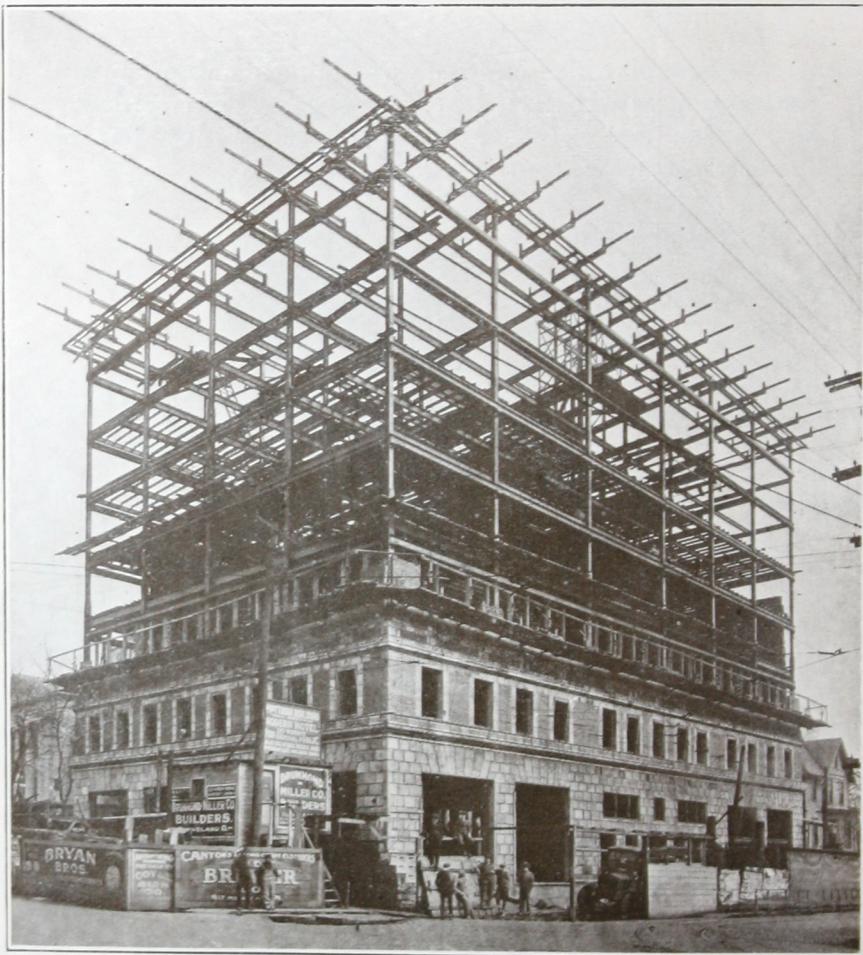
vels of modern architecture, whose graceful spires seem to pierce the very clouds.

The massive sturdiness, strength and durability have made this type of modern construction come into its own to stay forever.

We have played an important part in the drama of modern construction and in the transitory state from the more lowly and modest type of structure into the modern building of innumerable stories.

WHEELING STEEL  
CORPORATION BUILDING  
WHEELING, W. VA.



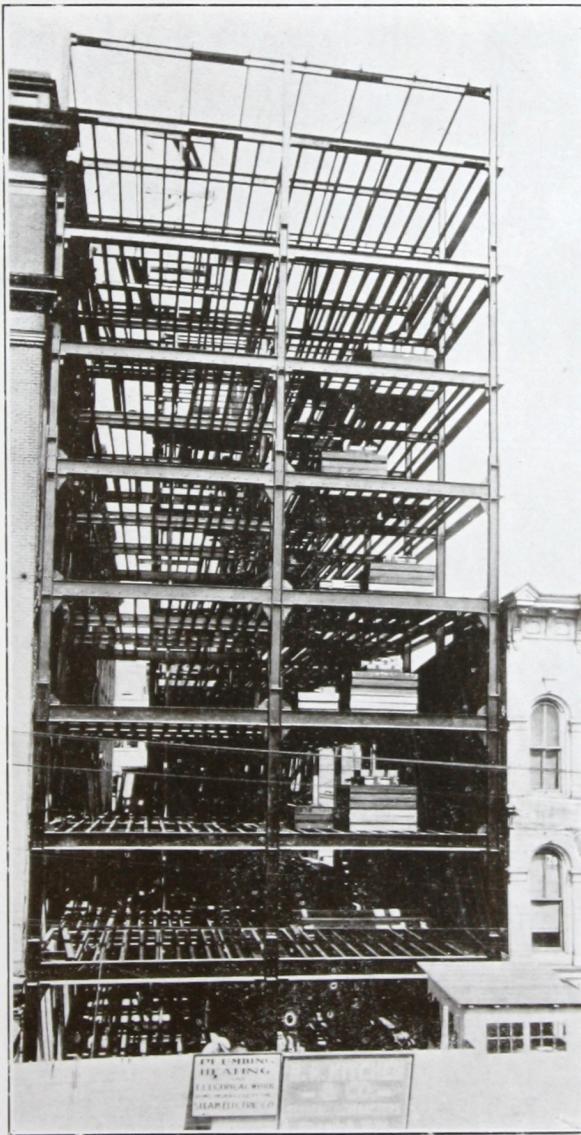


PYTHIAN TEMPLE AND OHIO NORTHERN HOTEL, CANTON, OHIO

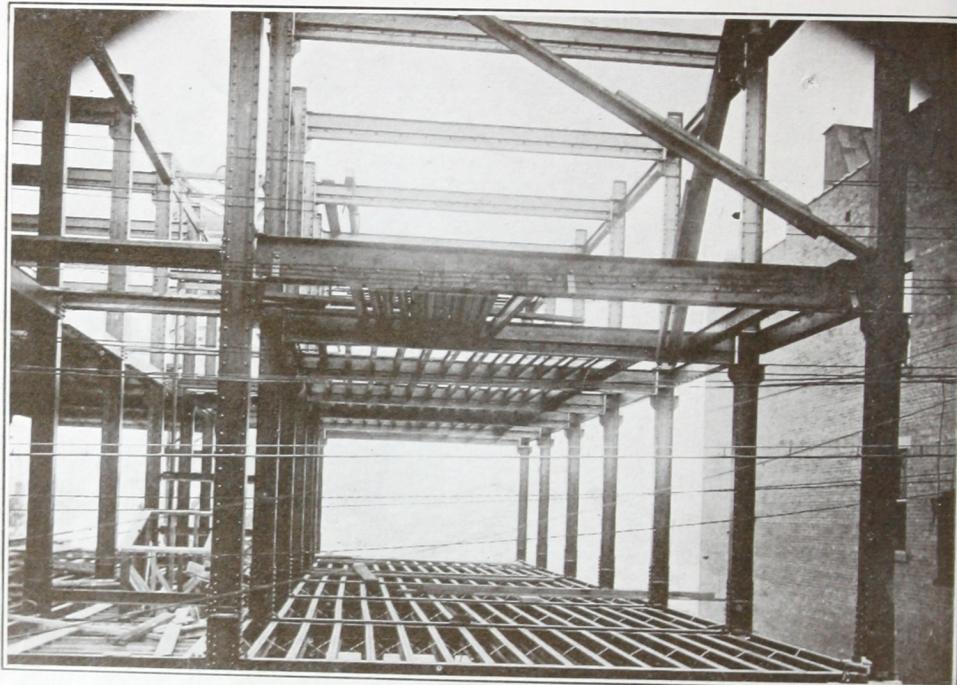
It was our fortune to embark into the structural steel business at just about the time the change was taking place. Naturally, we grew with the industry, keeping pace and developing as new ideas developed.

We had no old fogies or preconceived ideas to cast loose from or throw aside, therefore, built up a business to take care of modern construction and many of the finest and largest buildings in the country have been fabricated by our plants.

In buildings designed for business, schools, institutions, hotels, garages, theaters, manufacturing or warehouses, etc., the trend during the past few years has been to build with material that would offer the maximum amount of resistance to the menace of fire.



McLURE HOTEL ANNEX, WHEELING, W. VA.

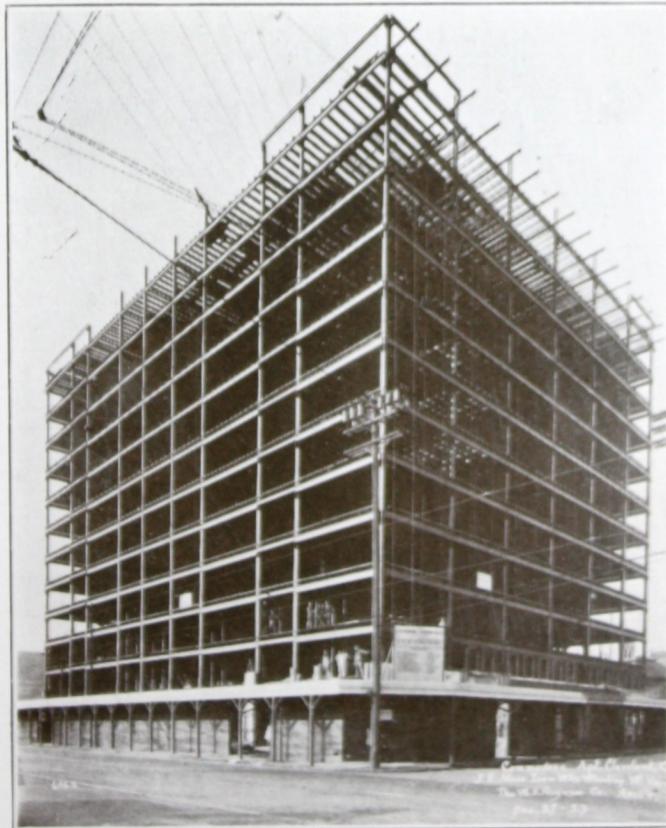


COLEMAN BUILDING, CLARKSBURG, W. VA.

We take excusable pride in the hundreds of buildings of this character for which we have furnished structural steel and steel joists.

We were one of the earliest fabricators and distributors of steel joists and stud sections used in floor and partition construction, steel lathing and fireproofing materials of all kinds

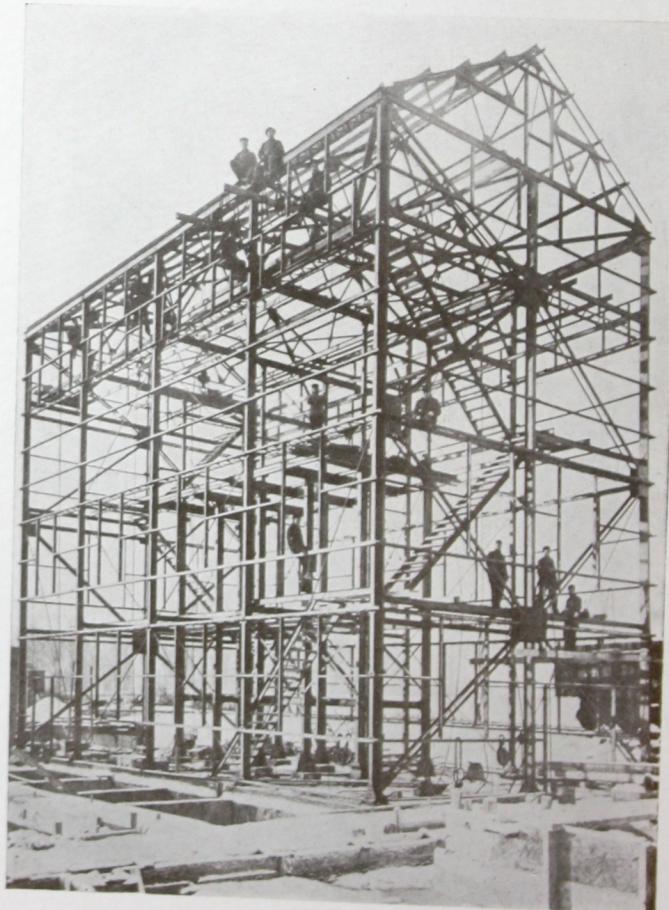
COMMODORE  
APARTMENTS  
CLEVELAND, OHIO

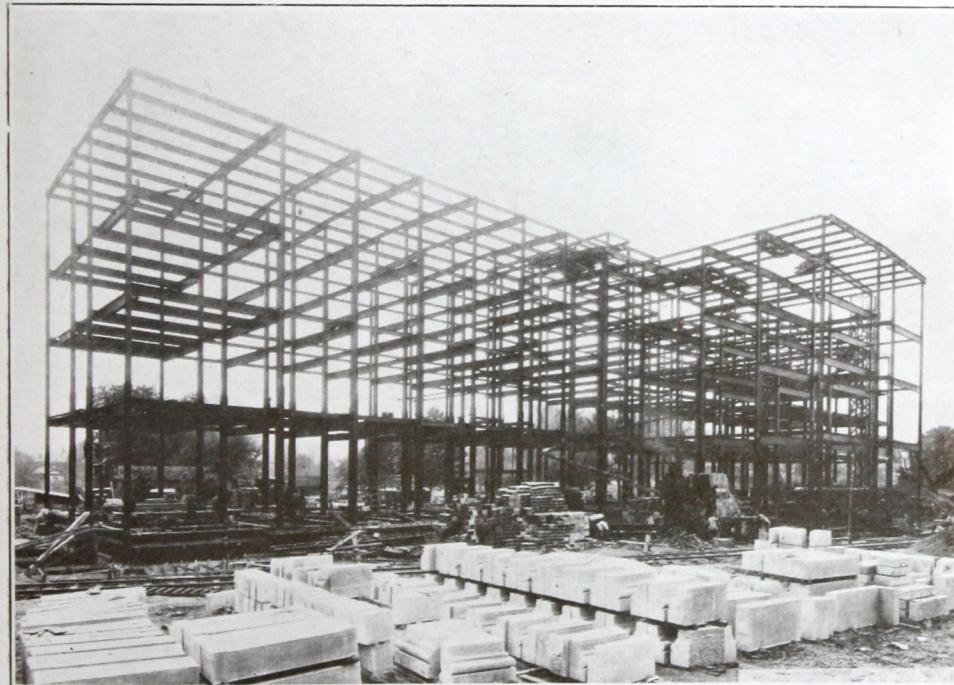


have had our careful study; in fact, we have really been pioneers in this class of construction.

This type of building, for every sort of use and occupancy, is the accepted standard of sound construction, offering, as it

GARBAGE DISPOSAL  
PLANT  
TOLEDO, OHIO



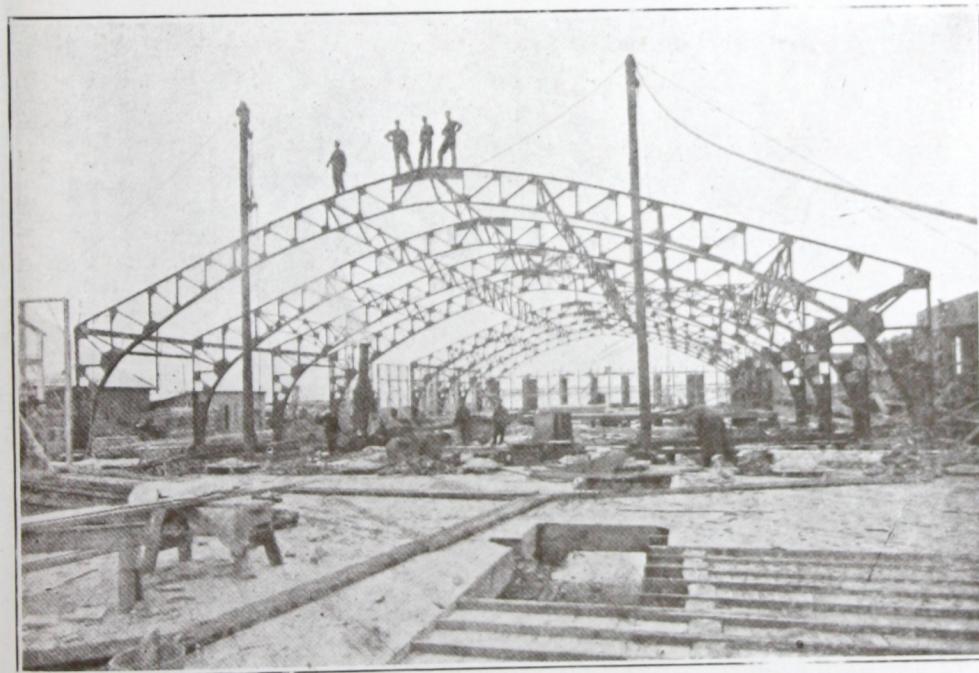


WEST VIRGINIA STATE CAPITOL, CHARLESTON, W. VA.

does, the greater amount of safety from fire, as well as adapts itself admirably to any use desired and solves the problem that is uppermost in the minds of architect, owner, builder and tenant.



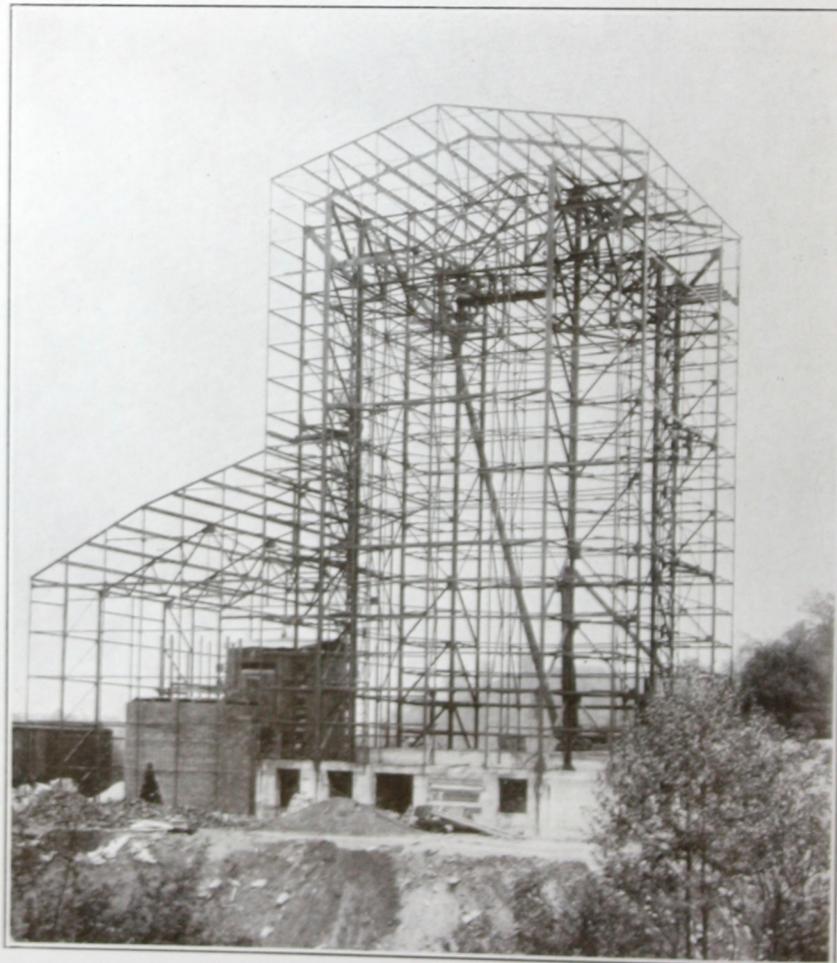
THIS illustration shows the building of the Buffalo General Electric Company at Buffalo, N. Y. The rear portion is of flat-iron shape, four stories high. The front portion is a perfect octagon, 61 feet across, running fourteen stories, or 183 feet high. From the offset at the fourteenth story to the top of the tower is 119 feet, making the total height 302 feet.



AUDITORIUM, RIVERVIEW PARK CO., DETROIT, MICH.

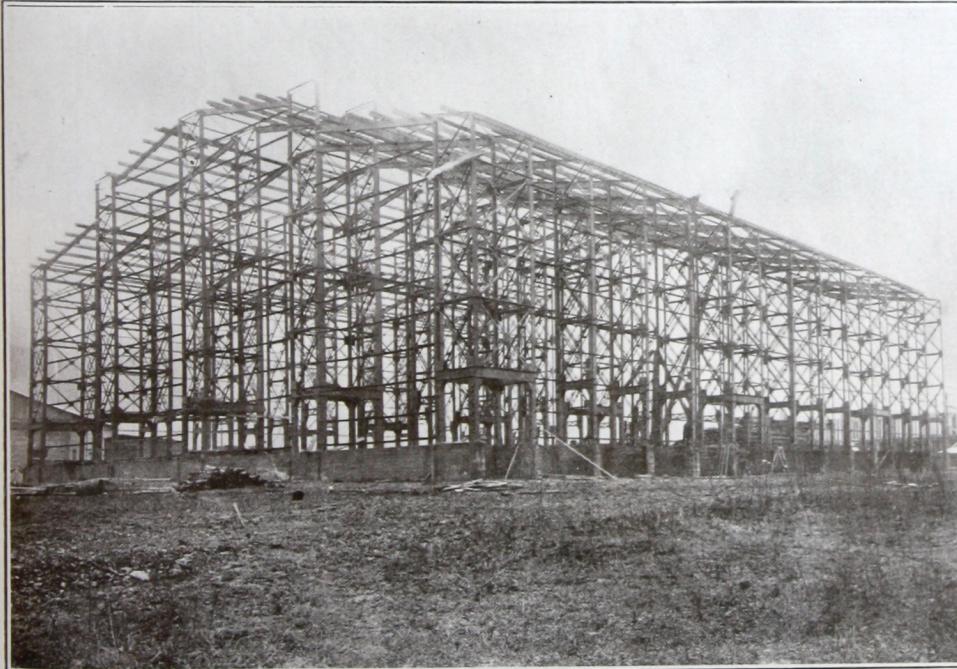
## Industrial Buildings

WE HAVE devoted many years of painstaking effort to complete an organization that can and does handle this particular class of construction in a most expert manner.



ACID BUILDING, FAIRMONT CHEMICAL CO., FAIRMONT, W. VA.

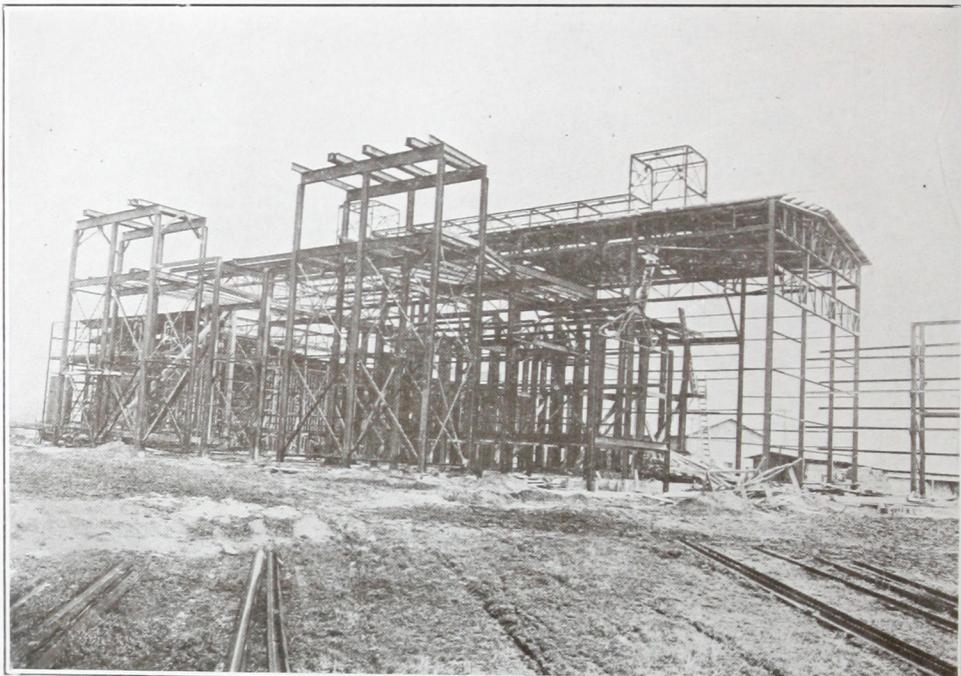
Industrial plants, factories, machine shops, general warehouses, commissaries, bunk houses, mess halls, automobile factories, garages, filling stations, railroad stations, section houses, express depots, terminal warehousing freight sheds.



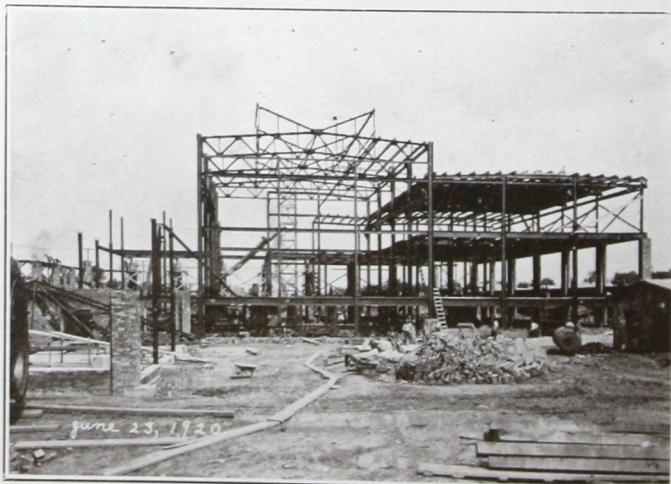
ACID BUILDING, UNITED ZINC SMELTING CORP., MOUNDSVILLE, W. VA.

MOSS

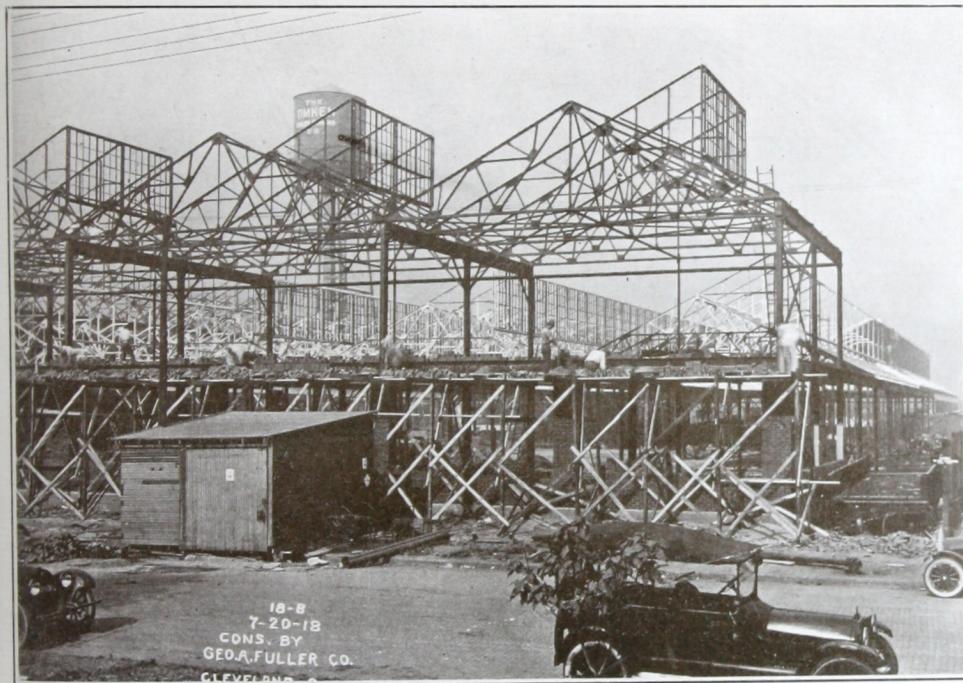
STRUCTURAL STEEL



KILN BUILDING NO. I, UNITED ZINC SMELTING CORPORATION,  
MOUNDSVILLE, W. VA.



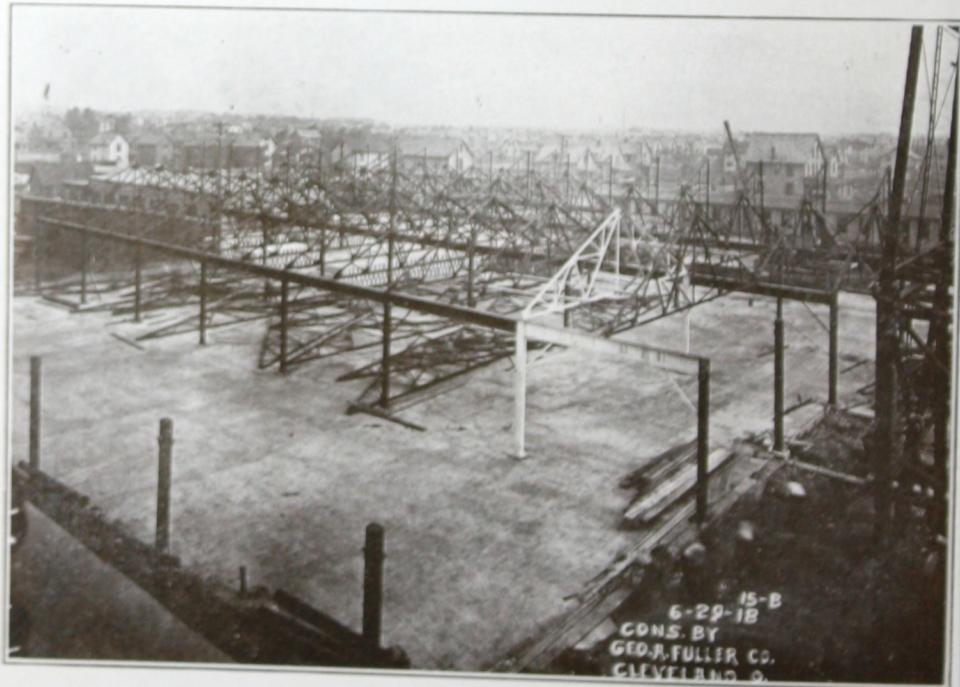
COLUMBIA TIRE AND RUBBER CO., MANSFIELD, OHIO



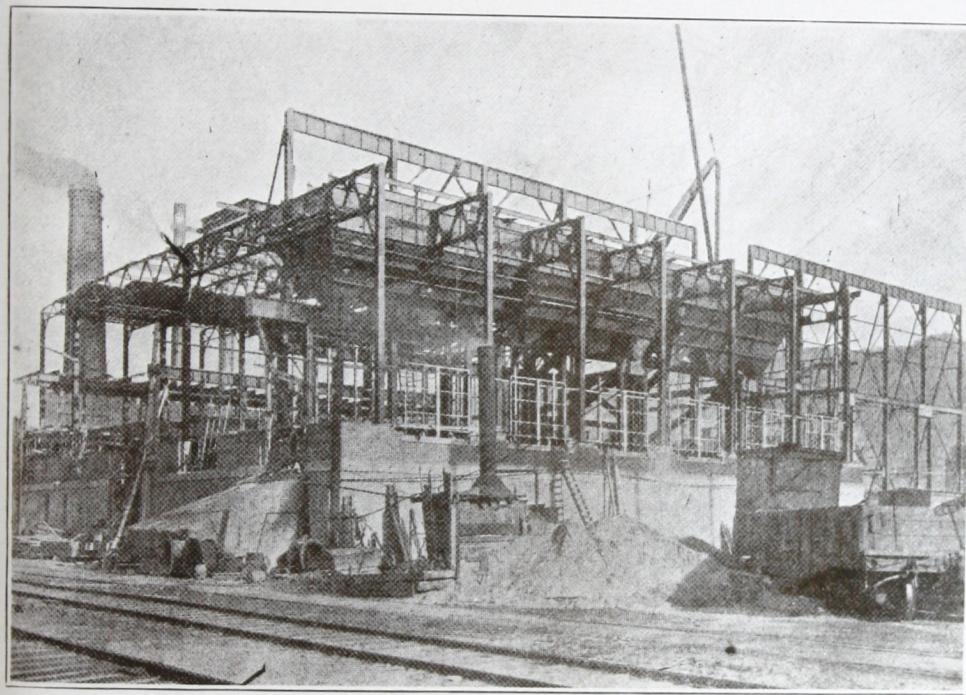
HARDENING PLANT, TIMKEN ROLLER BEARING COMPANY, CANTON, OHIO

power houses, pump houses, boiler houses, foundries, laundries, bakeries, voting booths, gymnasiums, cement and lime storage, field offices, steel plants, stables, contractors' storage, grain elevators, locomotive sheds, engine houses, acid buildings,

car repair shops, glass houses, kiln buildings—in fact, there is no building intended for any industrial use for which we do not have plans and designs, and best of all—years of practical experience in their construction. We have a large caliber organi-



ASSEMBLY BUILDING, TIMKEN ROLLER BEARING COMPANY, CANTON, OHIO

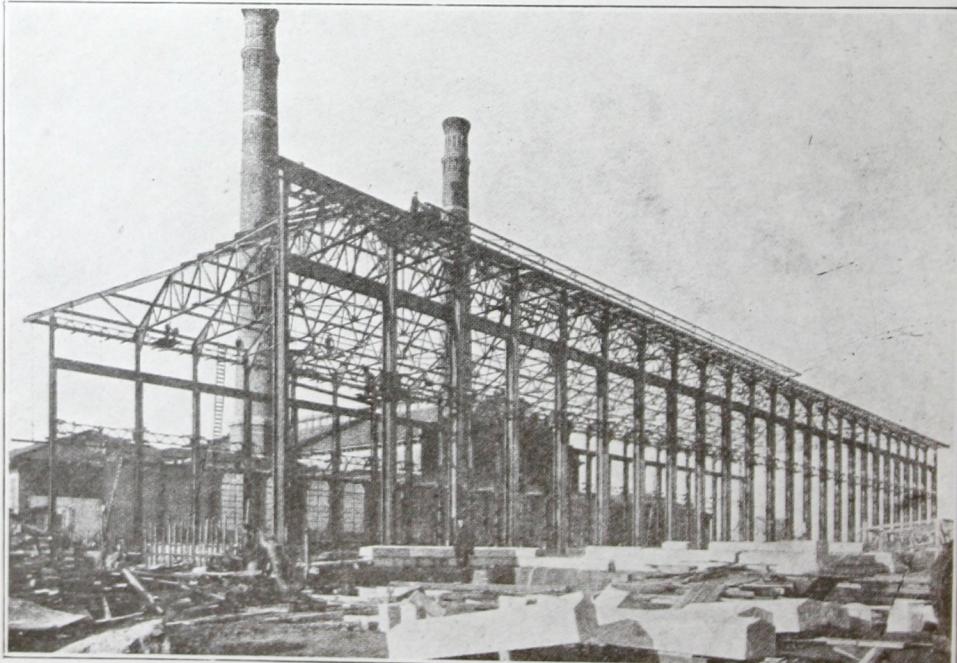


POWER HOUSE, WHEELING ELECTRIC CO., WHEELING, W. VA.

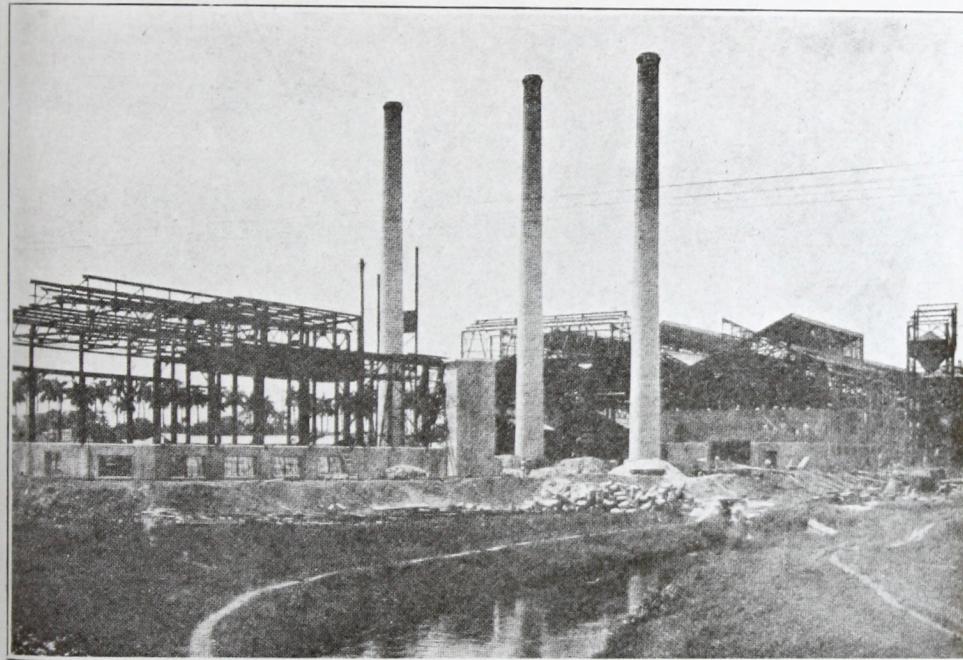
zation—under one head—with complete facilities and especially skilled and trained field forces to design and erect the most highly approved type of industrial buildings.

Factories and business outgrow buildings and equipment;

there is an ever pressing demand for more floor space. It is right here that our engineers enter into the problem. From the earliest rough sketch and estimate, to the owner's final okeh on the complete job, they stand ready to act as your personal



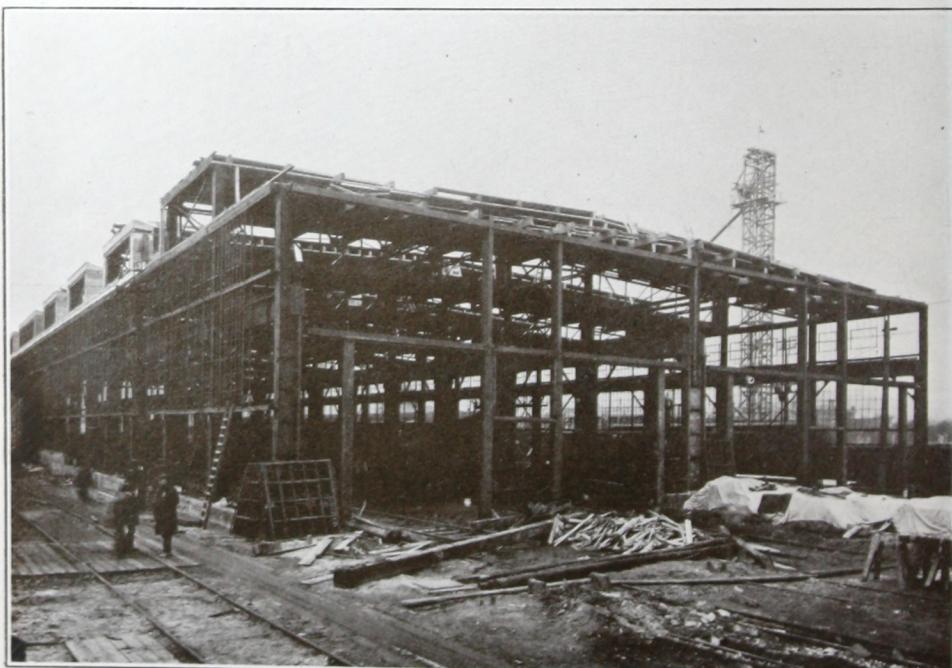
PORTER AVENUE PUMPING STATION, CITY OF BUFFALO, N. Y.



GLASS BOTTLE PLANT, NUEVA FABRICA DE HIELO, HAVANA, CUBA

advisors and helpers. They cooperate intelligently with architects, contractors, and building owners, so as to avoid tedious delays, misunderstandings, discussions and increased costs. They know the full value of time to a business man who is

frantically trying to add to his floor space in order to keep step with an increasing volume of business. They plan and expedite their work in such a way as to place, in any given location in a remarkably short space of time, a permanent build-



CAR REPAIR SHOP, PENNSYLVANIA RAILROAD COMPANY, FORT WAYNE, IND.



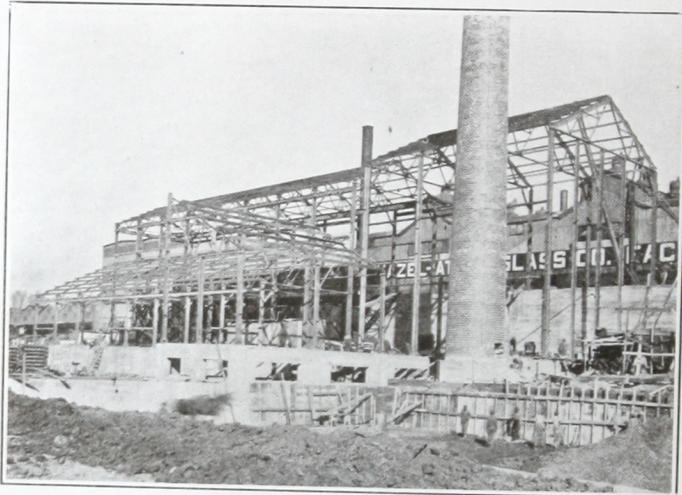
PORTION OF WHEELING STEEL CORPORATION PLANT, PORTSMOUTH, OHIO

ing, built to suit the requirements of any branch of industry.

Sometimes it is deemed advisable to move buildings from one location to another. Foresight recommends the use of steel construction in the original building, so it may be moved

MOSS

STRUCTURAL STEEL



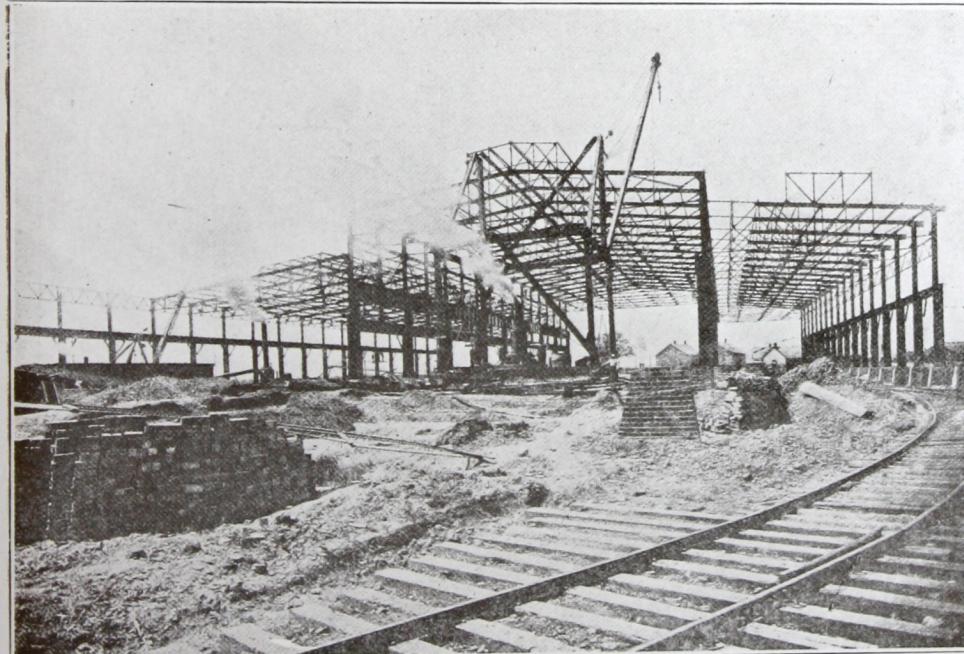
FACTORY OF THE  
HAZEL-ATLAS  
GLASS COMPANY  
WASHINGTON, PA.

CLARKSBURG GLASS  
COMPANY PLANT  
CLARKSBURG, W. VA.



at any subsequent date with one hundred percent salvage and re-erected on another site at a nominal cost.

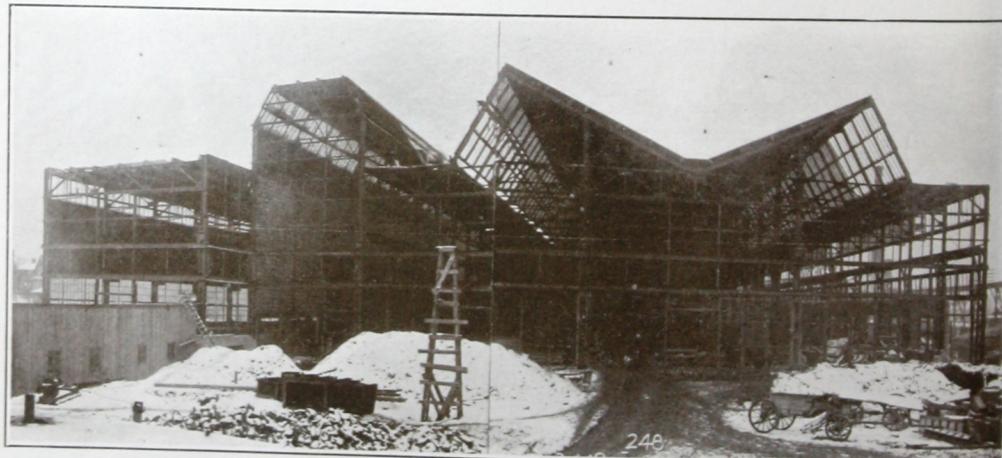
We design and fabricate buildings just exactly to meet the owner's ideas, with a reasonable first cost, very low up-keep, infrequent repairs and lifetime service.



ROLLING MILL BUILDING, PORTSMOUTH STEEL CO., PORTSMOUTH, OHIO

Steel construction in this class of building is ideal. Not only for its durability, but also for the ease with which other units may be added, or additions or alterations made.

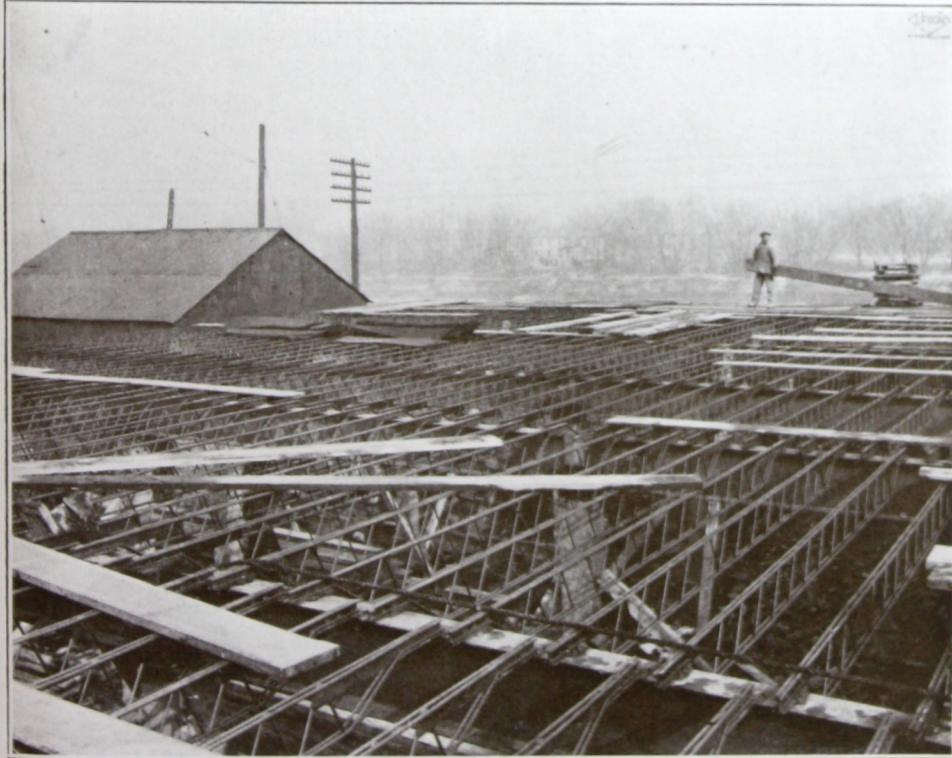
Our experience is at your service.



SYMINGTON FORGE COMPANY PLANT, ROCHESTER, N. Y.

## Bar Joists

**B**AR JOISTS are the latest development in economical firesafe floor construction in that they embody lightness of dead load with an adaptability uncommon in other similar types, such as making it unnecessary to cut into specified lengths, ease of erection and a proper provision for the installation of conduits for electric wiring, pipes for steam-fitting and plumbing. In conjunction with a structural steel frame, as shown in accompanying illustrations, permanence of unusual nature is obtained. This has been convincingly called to our attention



SCOTT LUMBER CO. WAREHOUSE, BRIDGEPORT, OHIO



EAGLES HOME, LORAIN, OHIO

in the unfortunate disaster at Lorain, Ohio on June 28th, 1924, where one of the two buildings left intact along an entire mile of main thoroughfare is the Eagles' Home, which is a steel frame with bar joist floors, and completed just about six weeks prior to the disaster.

We heartily recommend to the building public this combination of materials productive of such results, and will be pleased to furnish, upon request, data and design to meet any particular need.

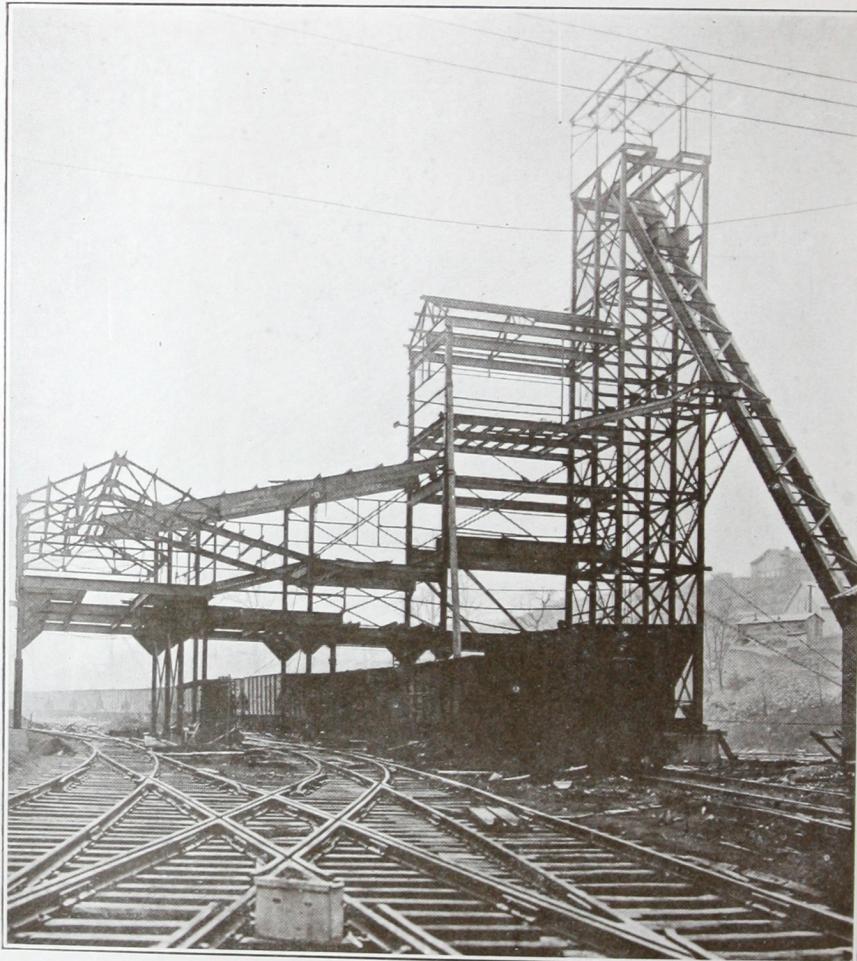
# Coal Tipple, Coal and Rock Conveyor Buildings

OUR experience in designing and erecting steel frame mine structures has been varied and extensive.

Situated as we are, in a very heart of the great coal fields of Ohio, West Virginia and Pennsylvania, we have been able to keep in close touch with all the developments and changes in the requirements of this industry.



HEAD HOUSE, BRIDGE AND SCREEN HOUSE OF THE NELSON FUEL CO.,  
LESLIE, W. VA.

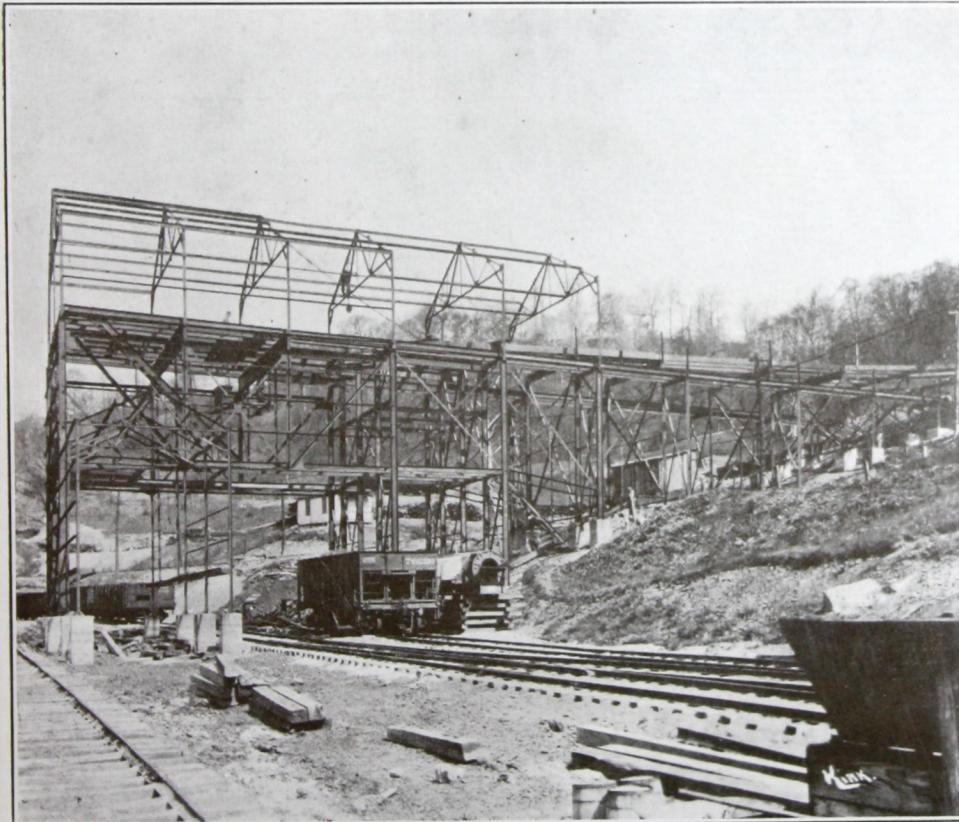


THE M. A. HANNA COMPANY TIPPLE, CAMPBELL STATION, PA.

We have designed and constructed every type of building. The coal industry has demanded, and our engineers have been able to solve, many problems that confronted mine operators, which, at first, seemed incapable of solution. Steel has almost entirely replaced all other materials in the erection of mine tipples and kindred structures.

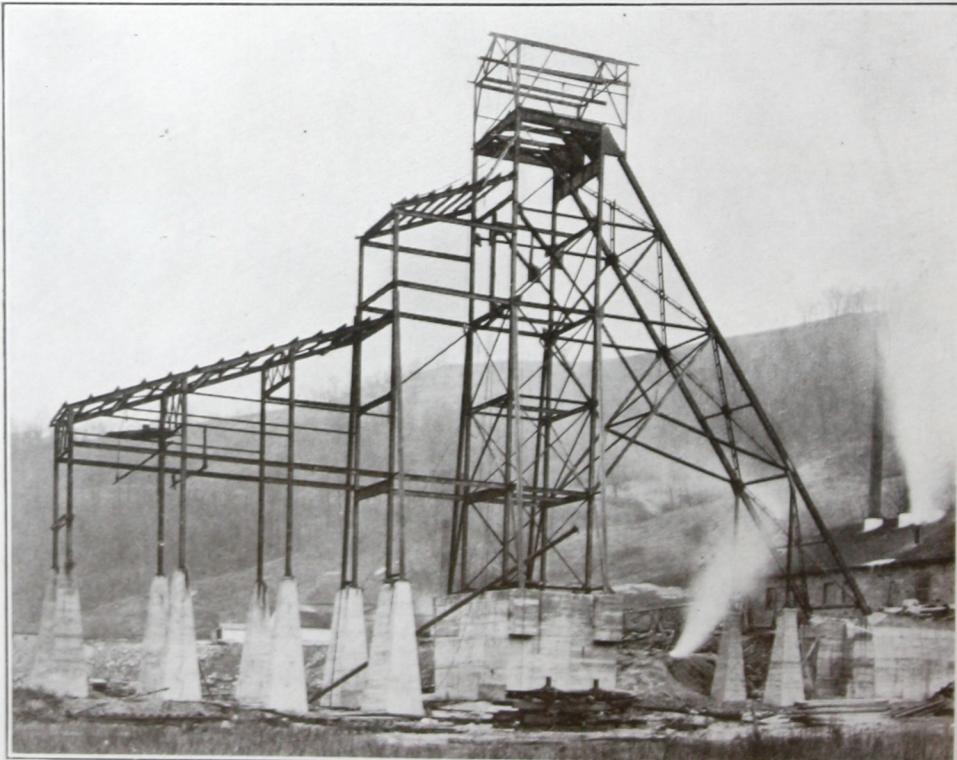
It almost totally eliminates the danger of destruction by fire, and is better adapted for carrying the heavy loads such structures are required to support.

Head frames, runways, screen houses, loading tipples and other buildings in the industry are being built today of steel throughout. The locations and contour of the land upon



HEAD FRAME, RUNWAY, SCREEN HOUSE AND LOADING TIPPLE, LORAIN  
COAL & DOCK COMPANY, STANLEY MINE, BARTON, OHIO

which these structures must sometimes be erected, have in times past presented difficulties. The use of steel has overcome these problems, for its adaptability to any and all conditions, makes the matter of erecting any specified structure, on any location, a mere matter of routine detail. Where extreme height plus unusual rigidity, as in a loading tipple, is necessary, there is no other form of construction that can equal steel. This fact holds true with all other structures the industry requires.

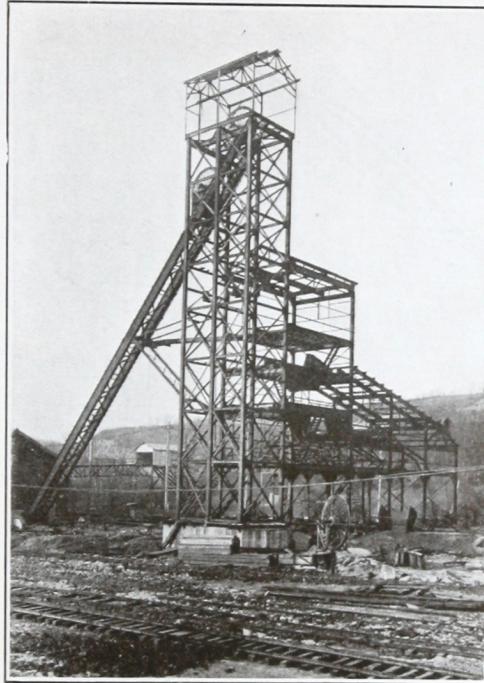


LOADING TIPPLE, ELM GROVE COAL MINING COMPANY, ELM GROVE, W. VA.

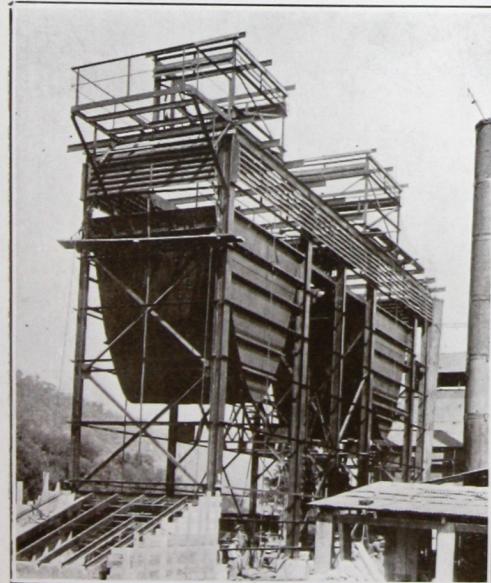
Our experience gained by solving many of the difficult problems has equipped us to give the benefit of our knowledge to prospective builders. Replacing obsolete wooden structures with modern steel construction, without shutting down the production, has been but one of the many intricate problems it has been our privilege to solve.

The men in this department have had an extensive experience and the cooperation of many of the country's best mining engineers.

Let us help solve your problems.



PICKANDS-MATHERS COAL CO.,  
TIPPLE, GREENE CO., PA.



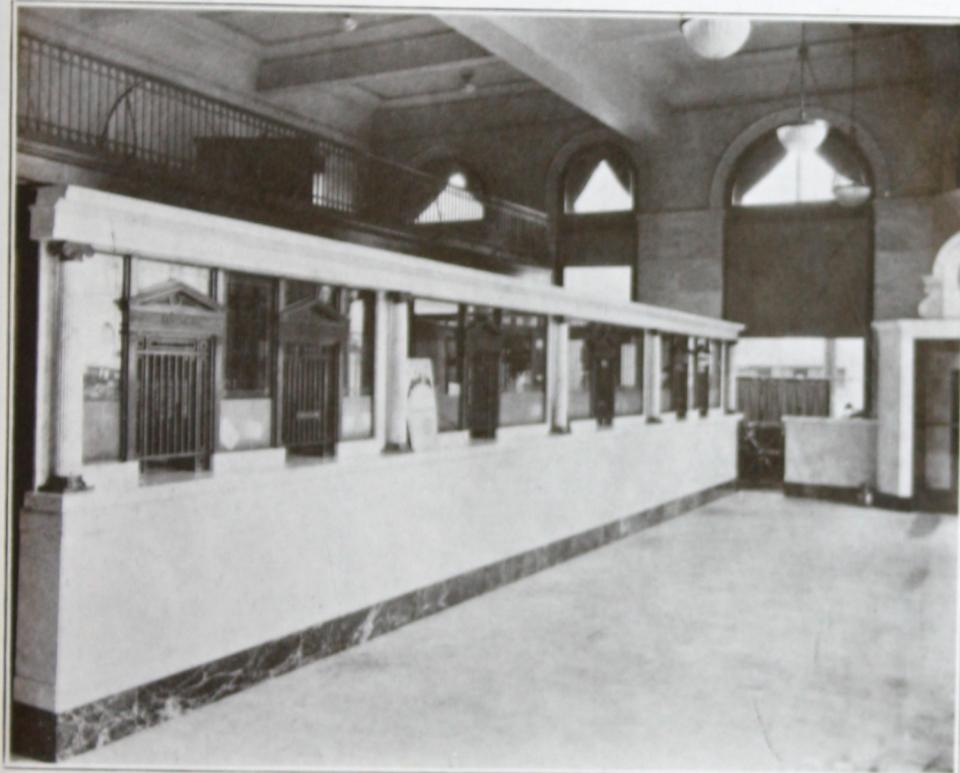
COAL PULVERIZING PLANT,  
MONONGAHELA IRON & STEEL CO.,  
PADEN CITY, W. VA.

## Ornamental Iron and Bronze Work

ENDING the crowning touch to the supremacy of the builder's art, the graceful lines of ornamental iron and bronze, add a symmetry and beauty to the finished structure, which might otherwise seem austere and grim.



PORTION OF DRAFTING DEPARTMENT



BANKING ROOM FIXTURES, CENTRAL UNION TRUST CO., WHEELING, W. VA.

The massive solidity of steel construction gives the impression of strength. It is only when the magic touch of the ornamental iron and bronze artist is added that the latent art and beauty is made manifest. It is the metamorphosis of Vulcan's art.

MOSS

STRUCTURAL STEEL



FIRE-ESCAPE  
COMMERCIAL NATIONAL BANK  
HIGH POINT, N. C.

STAIRWAYS  
COMMERCIAL NATIONAL  
BANK  
HIGH POINT, N. C.



Included in this type of work are railings, stairs, balconies, marquises, elevator inclosures, fire escapes, metal doors, windows, etc.



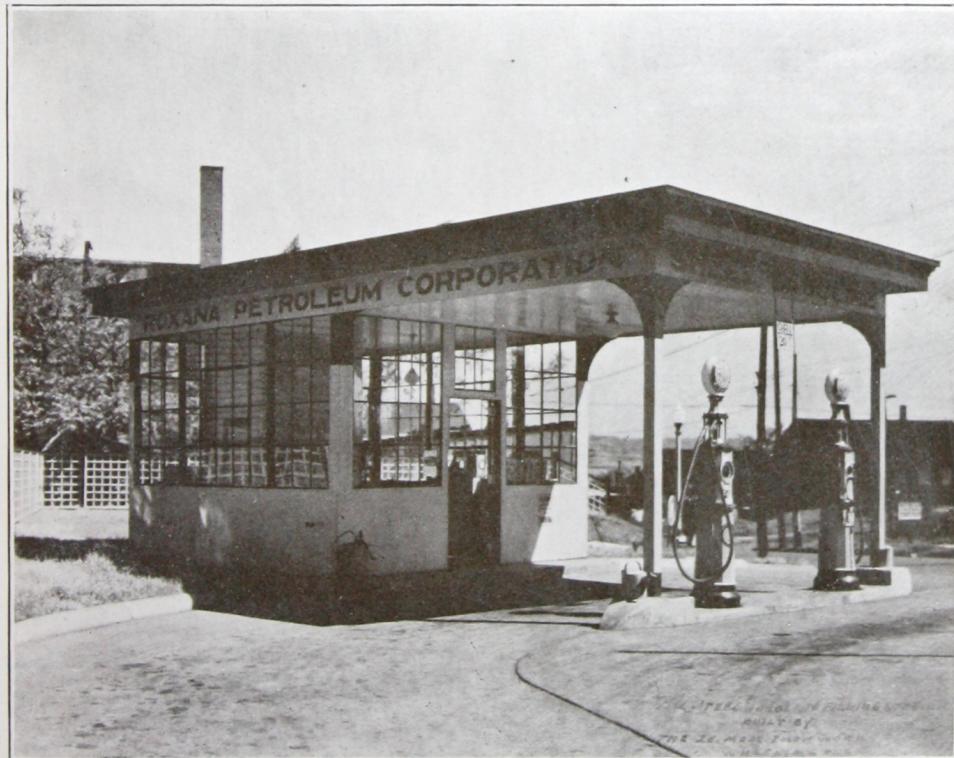
BALCONIES AND RAILINGS, JOHN O. SCHENK RESIDENCE, WHEELING, W. VA.

## All Steel Pumping and Filling Stations

THE enormous production of automotive transportation has necessitated the selling of gasoline at strategic points in retail quantities, thereby bringing into use places of business known as "Gasoline Stations".

The average station is built with a view only of making an attractive appearance without regard to the accompanying danger of fire, due to the combustible liquid sold. It, therefore, became the idea of this company to produce a station that would not only prove attractive, but would practically eliminate the danger of fire. This was obtained by producing in its entirety a gasoline station from steel. In fact, so successful has the experiment been, that not one piece of wood is included in the construction of one of these stations, and the rapid sale for this type of station has justified the expense of the experiment. This has also been brought about at no additional cost to the purchaser, and it is being offered to prospective customers on this basis.

Complete information, with the total cost, can be obtained, if desired. Stations are carried in stock, and shipment can be made within four or five days after receipt of order.



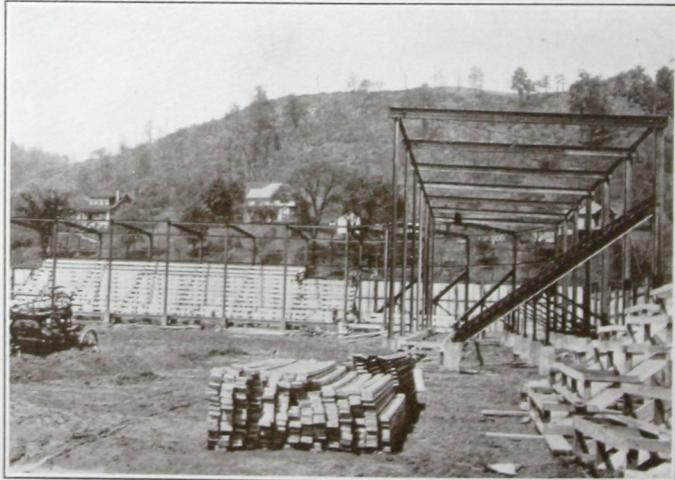
ROXANA PETROLEUM CORPORATION PUMPING AND FILLING STATION,  
PEORIA, ILL.

## Steel Grandstands

STRENGTH is one of the prime requisites in this type of structure. Our engineers are also alert to the fact that ease of entrance and egress are also great factors.

We have built all steel grandstands in such a way that not only are they capable of sustaining great weight and vibration, but we have built into them our modern ideas of greater seating capacity, wide aisles and unobstructed view.

Steel structures of this type prove more attractive as well as most durable.



GRANDSTAND BELLAIRE ATHLETIC ASSOCIATION,  
BELLAIRE, OHIO

## Steel Ships and Barges

ACH year sees greater usage of the steel barge on the water-ways of America, and deservedly so, for the steel barge has proven one of the most advantageous uses to which steel has been adapted.

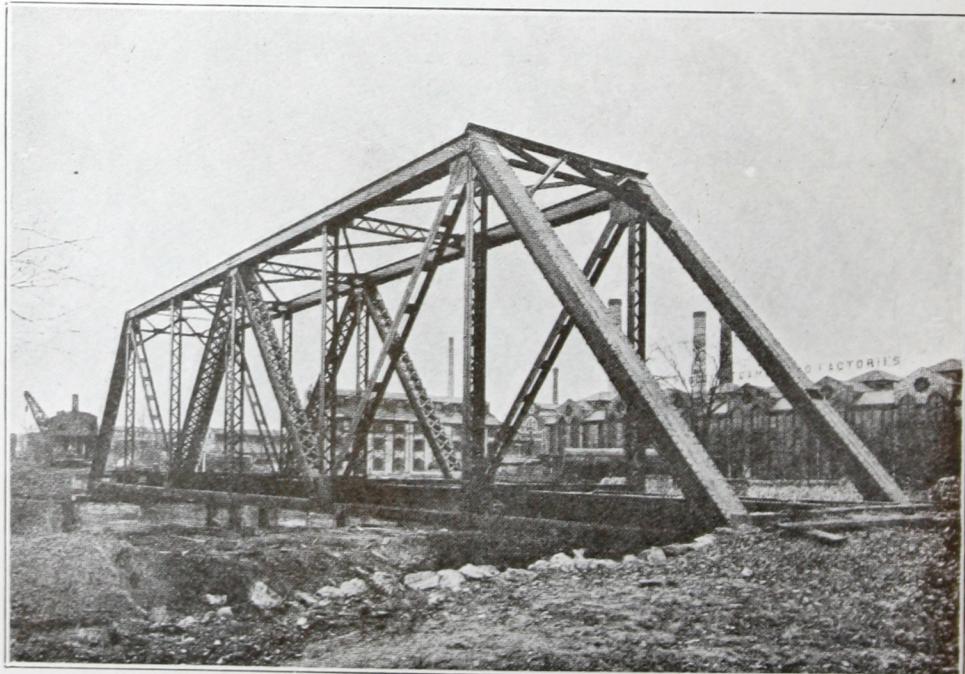
Its durability, its trussed rigidity, its rugged strength and improved appearance coupled with a greater carrying capacity and a lowered water resistance have brought the steel barge to the serious consideration of executives.

We have designed and supplied a goodly number of these carriers, one of which has been named in honor of our Riverside plant.

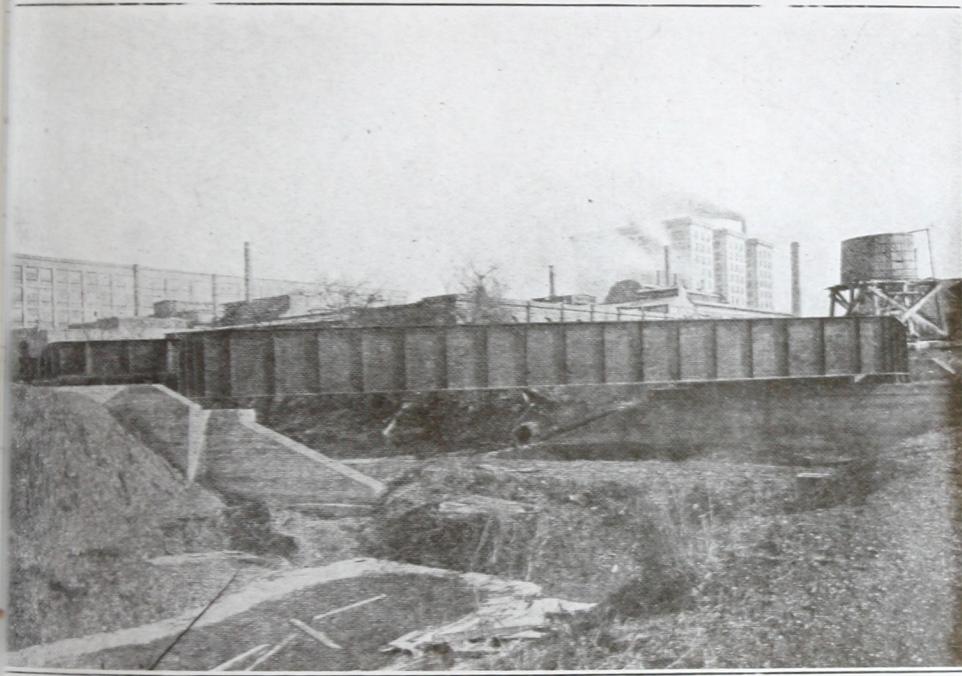
We will welcome inquiries from interested parties.

## Bridges

WE HAVE executed orders for bridge work for nearly all the principal railroads of the United States. We have also built viaducts, city and highway bridges in all parts of the country.



THROUGH RIVETED TRUSS, 140 FT. SPAN, FOR PROCTOR & GAMBLE,  
CINCINNATI, OHIO



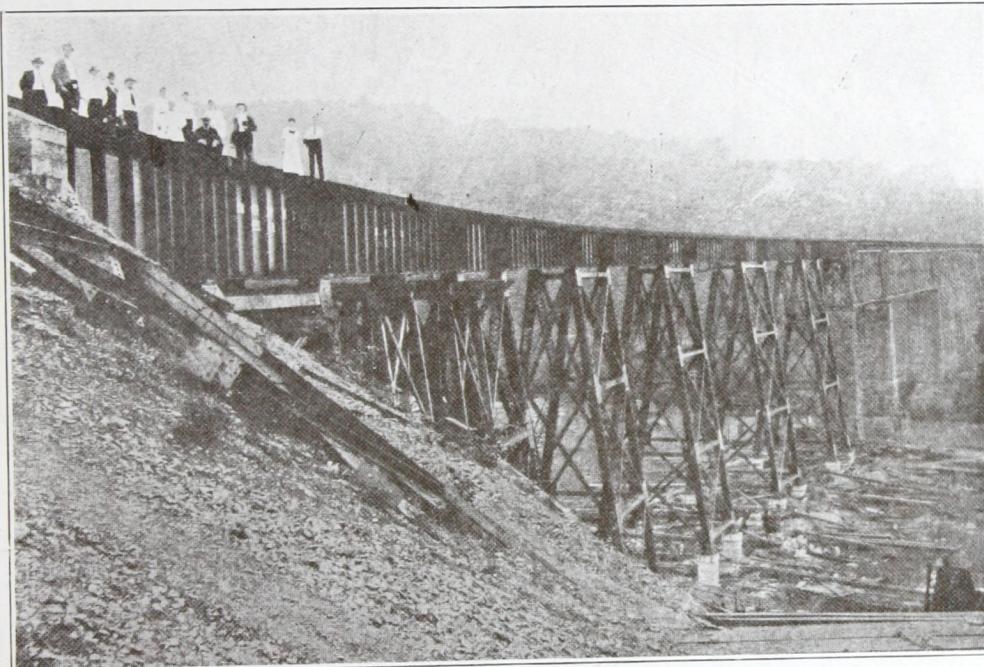
DOUBLE TRACK PLATE GIRDER BRIDGE, 100 FT. SPAN, DAYTON, LEBANON,  
AND CINCINNATI RAILWAY COMPANY, DAYTON, OHIO

There is, perhaps, no branch of the steel fabricating industry that requires more engineering ingenuity and knowledge than does work of this nature. Our engineers have conquered some of the most difficult problems to be found in the category of bridge construction; and not only solved them, but in many cases, maintained traffic over the old structure while the new one was in process of erection.



ELECTRIC RAILWAY AND VIADUCT OVER WEST FORK  
RIVER NEAR CLARKSBURG, W. VA.

The above view shows the electric railway and highway viaduct erected over West Fork River, near Clarksburg, W. Va. The work was done for the Monongahela Valley Traction & Electric Company, and Harrison County. This bridge is of the combined electric railway and highway type. It is 585 feet long and weighed 450 tons. During its erection roadway traffic was maintained on the old bridge underneath until the new structure was ready for traffic.



NEW RIVER BRIDGE, NEW RIVER, TENNESSEE

This bridge was erected by us for the Cincinnati Southern Railway, at New River, Tennessee. It is 1,310 feet long and contains 2,500 tons. Traffic was maintained during the entire time of erection.

## Sales Offices

526 Union Building, Cleveland, Ohio.

403 Frisco Building, St. Louis, Mo.

701 Virginian Land Bank Building, Charleston, W. Va.

710 Union Trust Building, Cincinnati, Ohio.

809 Keystone Building, Pittsburg, Pa.

Strategically situated so as to serve your particular locality.

Inquiries can be directed to main office, or nearest sales office, and will receive prompt attention.







